



Montana Fish, Wildlife & Parks

Rural Route 1 4210
Glasgow, MT 59230
June 5, 2000

Environmental Quality Council
Directors, Office, Dept of Environmental Quality
Montana Fish, Wildlife & Parks
Directors Office
Fisheries Division
Darlyne Dascher, FWP Commissioner
Janet Ellis, Montana Audubon Council
Montana State Library
Montana Environmental Information Center
Independent Record, Helena
Havre Daily News
Great Falls Tribune

Ladies and Gentlemen:

The enclosed draft Environmental Assessment (EA) has been prepared for the rehabilitation of the fishery in **Ross Reservoir, Blaine County**. FWP proposes to treat the reservoir with rotenone at a concentration of 2 ppm to remove illegally introduced white suckers. Treatment will allow for the re-establishment of a productive salmonid fishery. The reservoir will be treated in late summer and restocked with Yellowstone cutthroat trout the following spring.

Questions or comments about this project should be addressed to Kent Gilge, FWP Havre Area Office, 2165 Highway 2 East, Havre, MT 59501, and will be accepted until Friday, July 7, 2000.

Sincerely,

Jim Satterfield
Regional Supervisor

MEPA/NEPA/HB495 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of Proposed State Action**
Lake Rehabilitation Using Rotenone
2. **Agency Authority for the Proposed Action** - MAC 87-3-206, A87-1-201, MCA et seq and 87-3-206, MCA
3. **Name of Project** Ross Reservoir Rehabilitation
4. **Name, Address and Phone Number of Project Sponsor (if other than the agency)**
MDFWP, Region Six, RT1-4210, Glasgow, MT 59230
5. **If Applicable:**

Estimated Commencement Date 7/10/00

Estimated Completion Date 7/11/00

6. **Location Affected by Proposed Action (county, range and township)**

Blaine County, T29N R18E S07

7. **Project Size: Estimate the number of acres that would be directly affected that are currently:**

(a) **Developed:**
residential 0 acres
industrial 0 acres

(b) **Open Space/Woodlands/
Recreation** 5 acres

(c) **Wetlands/Riparian
Areas** 0 acres

(d) **Floodplain** 0 acres

(e) **Productive:**
irrigated cropland 0
acres

dry cropland 0 acres

forestry 0 acres

rangeland 0 acres

other 0 acres

8. **Map/site plan:** attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.

9. **Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action.**

We propose to treat the reservoir with rotenone at a concentration of 2 ppm to remove illegally introduced white suckers. The reservoir will be treated in late summer and restocked with Yellowstone cutthroat trout the following spring. Treatment will allow for reestablishment of a productive salmonid fishery.

10. **Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.**

(a) **Permits:**

<u>Agency Name</u>	<u>Permit</u>	<u>Date Filed/#</u>
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Montana Dept. of Environmental Quality	Discharge permit for rotenone Applicator Lic. # 3-24-12738-15	pending
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(b) **Funding:**

<u>Agency Name</u>	<u>Funding Amount</u>
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MDFWP	undetermined
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(c) **Other Overlapping or Additional Jurisdictional Responsibilities:**

<u>Agency Name</u>	<u>Type of Responsibility</u>
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None	
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11. **List of Agencies Consulted During Preparation of the EA:**

Montana Dept. of Environmental Quality

PART II. ENVIRONMENTAL REVIEW

PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will the proposed action result in:	IMPACT ^o				Can Impact Be Mitigated ^o	Comment Index
	Unknown ^o	None	Minor ^o	Potentially Significant		
➤ a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?		X				
➤ c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

PHYSICAL ENVIRONMENT

2. <u>AIR</u> Will the proposed action result in:	IMPACT ^o				Can Impact Be Mitigated ^o	Comment Index
	Unknown ^o	None	Minor ^o	Potentially Significant		
➤ a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		X				
b. Creation of objectionable odors?			X		Yes	2b
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. ♦ For P-R/D-J projects, will the project result in any discharge which will conflict with federal or state air quality regs? (Also see 2a)		X				
f. Other _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (Attach additional pages of narrative if needed):
2b. Short term objectionable odors may result from fish decomposition. There will be no recreational use around

Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

➤ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

the reservoir for six months following treatment. The nearest habitation is several miles away.

PHYSICAL ENVIRONMENT

3. <u>WATER</u> Will the proposed action result in:	IMPACT ^o				Can Impact Be Mitigated ^o	Comment Index
	Unknown ^o	None	Minor ^o	Potentially Significant		
➤ a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X		Yes	3a
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?			X			3f
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. ♦♦ For P-R/D-J, will the project affect a designated floodplain? (Also see 3c)		X				
m. ♦ For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a)		X				
n. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources (Attach additional pages of narrative if needed):

3a. Rotenone will be distributed throughout the water column and is lethal to all gill-breathing organisms. Rotenone is a naturally occurring organic compound that interferes with oxygen transfer at the cellular level. Fish will be killed and aquatic invertebrates will be reduced temporarily. Birds, mammals, reptiles, and other species lacking gills are not harmed by the chemical. Rotenone is highly biodegradable and detoxifies rapidly over time and with dilution. No discharge from the reservoir will occur until the water is detoxified.

3f. Well monitoring in both California and Montana have shown that rotenone and other constituents of the formulation do not get into groundwater adjacent to treated lakes.

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- ✓ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

4. <u>VEGETATION</u> Will the proposed action result in:	IMPACT [⊙]				Can Impact Be Mitigated [⊙]	Comment Index
	Unknown [⊙]	None	Minor [⊙]	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				
f. ♦♦ For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		X				
g. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

- ⊙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- ⊙ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

➤ 5. <u>FISH/WILDLIFE</u> Will the proposed action result in:	IMPACT [○]				Can Impact Be Mitigated [○]	Comment Index
	Unknown [○]	None	Minor [○]	Potentially Significant		
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?			X		Yes	5b
c. Changes in the diversity or abundance of non-game species?			X		Yes	5c
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. ♦♦ For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)		X				
i. ♦ For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		X				
j. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
 5b&c. All fish including stocked cutthroat trout remaining in the reservoir will be killed. There will also be a certain amount of mortality to zooplankton, aquatic insects and gill breathing amphibians. Illegally introduced suckers will be eliminated which will increase growth rates of future trout plantings.



Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.



Include a narrative description addressing the items identified in 12.8.604-1a (ARM)



Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts. Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT ^o				Can Impact Be Mitigated ^o	Comment Index
	Unknown ^o	None	Minor ^o	Potentially Significant		
a. Increases in existing noise levels?		X				
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

HUMAN ENVIRONMENT

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT ^o				Can Impact Be Mitigated ^o	Comment Index
	Unknown ^o	None	Minor ^o	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

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- o Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

8. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in:	IMPACT [○]				Can Impact Be Mitigated [○]	Comment Index
	Unknown [○]	None	Minor [○]	Potentially Significant		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?			X		Yes	8a
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. ♦For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

8a. Rotenone degrades quickly and is registered for use by the U.S. Environmental Protection A. At a treatment rate of 2ppm Noxfish brand formulation, the water will contain 100 ppb(mg/l) rotenone. This is about 3,000 times below the safe level for short term human consumption (300 mg/l) according to Gleason et al (1969). Therefore there is no risk associated with someone accidentally drinking from the reservoir. The safe level for life-long exposure to water containing rotenone is 1.8 mg/l (EPA IRIS database). The water in Ross Reservoir will not likely have a concentration greater than this for more than two months, so there would be no life time risk.

Gleason, M, R. Gosselin, H. Hodge and P. Smith. 1969. Clinical toxicology of commercial products. The William and Wilkens Company. Baltimore, Maryland.

HUMAN ENVIRONMENT

9. <u>COMMUNITY IMPACT</u> Will the proposed action result in:	IMPACT [○]				Can Impact Be Mitigated [○]	Comment Index
	Unknown [○]	None	Minor [○]	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

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- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
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No impacts are expected.

HUMAN ENVIRONMENT

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> Will the proposed action result in:	IMPACT [⊙]				Can Impact Be Mitigated [⊙]	Comment Index
	Unknown [⊙]	None	Minor [⊙]	Potentially Significant		
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: _____		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				
➤ e. Define projected revenue sources			X			10e
➤ f. Define projected maintenance costs.		X				
g. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

10e. Project will require approximately \$1,000 worth of rotenone and 4 man-days of labor. Funds will be expended from Fisheries Division budget.

- ⊙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- ◆ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ◆ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ◆ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

➤ 11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT [○]				Can Impact Be Mitigated [○]	Comment Index
	Unknown [○]	None	Minor [○]	Potentially Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
➤ c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)		X				
d. ♦ For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

HUMAN ENVIRONMENT

12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:	IMPACT [○]				Can Impact Be Mitigated [○]	Comment Index
	Unknown [○]	None	Minor [○]	Potentially Significant		
➤ a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. ♦ ♦ For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a)		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

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- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
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HUMAN ENVIRONMENT

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT ^o				Can Impact Be Mitigated ^o	Comment Index
	Unknown ^o	None	Minor ^o	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. ♦ For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				
g. ♦♦ For P-R/D-J, list any federal or state permits required.		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):
No Impacts are expected.

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- o Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
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1. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

- A. No action
- B. Rehabilitate lake to reestablish a productive trout fishery.
- C. Biological Control: Introduce predator fishes to reduce sucker population

2. Alternative B is the most acceptable alternative based on the current state of the fishery and recovery potential. No action would result in maintenance of a low quality fishery. Biological control is not presently acceptable due to anticipated non-target losses of trout.

3. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

Post signs around lake warning people not to eat fish or drink water.

4. Based on the significance criteria evaluated in this EA, is an EIS required? NO If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

With low impacts to the environment and/or the public the EA is the appropriate level of analysis.
Ross reservoir was previously rehabilitated using the same methods in the mid 1980's.

5. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

Public involvement will include notice in local newspapers, State Bulletin Board and distribution of the Draft EA to those involved or interested for a 30 day comment period.

6. Duration of comment period if any:

15 day comment period.

7. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Kent Gilge – Fisheries Biologist
2165 Hwy 2E, Havre, MT 59501
(406) 265-6177

PART III. NARRATIVE EVALUATION AND COMMENT

Ross reservoir was rehabilitated with rotenone approximately 13 years ago with excellent results. The reservoir is on private land and has been open for public fishing for over 30 years. The landowner has been, and is, fully supportive of this effort. If low water/dry conditions are not encountered by late summer the project may be postponed for one year. Only minor impacts to the environment or the public use of the area have been identified.